# User Manual

## SATO CUPS Driver for Linux

Read this User Manual before using this product.
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# Overview

# 1

The SATO Driver for Linux system was developed to allow the users to print into the SATO printer.

This driver is based on CUPS printing system for Linux. All the device communications are handled by CUPS (backend). The raster filter converts the CUPS raster graphic into SBPL which the printer can understand. For an instance, if the user prints a label, the raster filter converts the graphic into SBPL command which will be send to the printer together with the printer options.

## *1.1 Supported Models of SATO Printer*

Currently only the following models of printers are supported by the current version of the driver:

| Series Name | Models |
|---|---|
| CG2 Series | CG208 DT/TT<br>CG212 DT/TT |
| CG4 Series | CG408 DT/TT<br>CG412 DT/TT |
| GZ4e Series | GZ408e<br>GZ412e |
| M84 Pro Series | M84 Pro 2<br>M84 Pro 3<br>M84 Pro 6 |
| CL6e Series | CL608e<br>CL612e |
| CL4e Series | CL408e<br>CL412e |
| M84xxSe Series | M8485Se<br>M8490Se<br>M8459Se<br>M8460Se<br>M8465Se |
| CT4i Series | CT408i<br>CT412i |
| LM4e Series | LM408e<br>LM412e |
| S84 Series | S8408<br>S8412<br>S8424 |
| M10e Series | M10e |
| GL4e Series | GL408e<br>GL412e |
| MB2i Series | MB200i |
| MB4i Series | MB400i<br>MB410i |
| TG3e Series | TG308e<br>TG312e |
| CL4NX | CL4NX 203 dpi<br>CL4NX 305 dpi<br>CL4NX 609 dpi |

| | |
|---|---|
| S84ex/S86ex | S84ex 203 dpi<br>S84ex 305 dpi<br>S84ex 609 dpi<br>S86ex 203 dpi<br>S86ex 305 dpi |
| CL6NX | CL6NX 203 dpi<br>CL6NX 305 dpi |
| CL4NX-J | CL4NX-J 203 dpi<br>CL4NX-J 305 dpi<br>CL4NX-J 609 dpi |
| CL6NX-J | CL6NX-J 203 dpi<br>CL6NX-J 305 dpi |

## *1.2 Printer Properties/Options*

The driver supports printer's the following settings below. Please take note that the setting varies depending on the printer model. For more information, refer to the printer specifications.

| Property | Description |
|---|---|
| Media Size | Sets the media size. Units in inches. |
| Sensor Type | Specifies the selection of the transparent sensor or the reflection sensor |
| Print Method | Sets the Print method/type such as Thermal Type and Direct Thermal Type |
| Resolution | Sets the print density |
| Print Speed | Sets the print speed |
| Darkness Range | Sets the print darkness. The print density parameter can be specified in six options from "A" to "F". |
| Darkness Level | Sets the print darkness level. The print density level parameter can be specified in five options from "1" to "5" |
| Print Mode | Sets the operation mode such as Continuous, Tear Off, Cutter and Dispenser Operation |
| Cutter | Sets the cutter options. This is only applicable for printer units with cutter. Cutter Operation Mode should also be selected to make it work |
| Vertical Offset | Sets the start position coordinate. Specifies the vertical start position correction signal. Units in inches |
| Horizontal Offset | Sets the start position coordinate. Specifies the horizontal start position correction signal. Units in inches |

# System Requirements

# 2

The minimum system requirements for the SATO Driver are:

- IBM-compatible PC (CPU architecture: x86 and x64)
- Linux distributions such as RPM and DEB

| | |
|---|---|
| DEB | Ubuntu 11.10 or higher |
| RPM | Fedora 16 or higher |

- CUPS printing system for Linux (1.5 or higher)
- At least one supported model of SATO printer that can connect to the machine

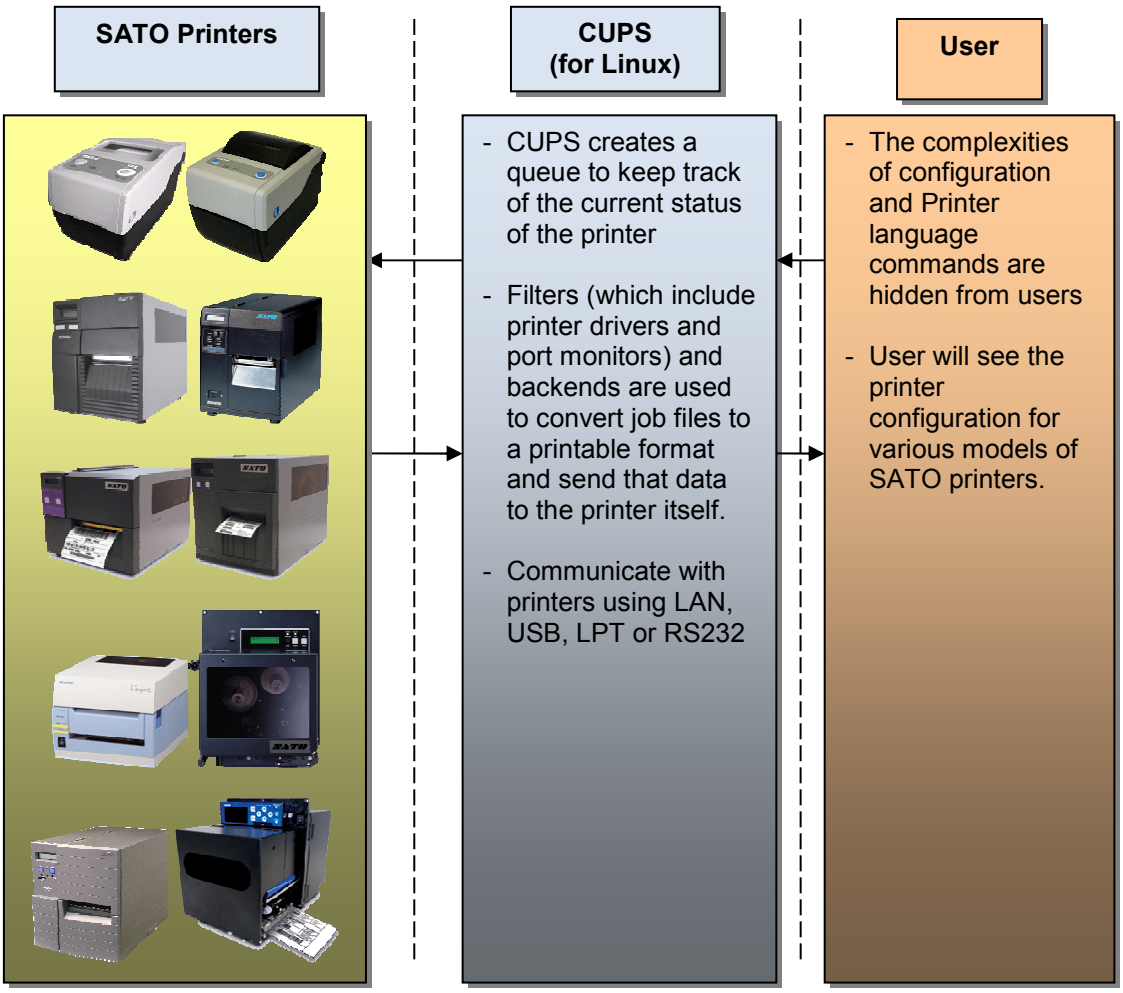

SATO Printers
CUPS (for Linux)
User
- CUPS creates a queue to keep track of the current status of the printer
- Filters (which include printer drivers and port monitors) and backends are used to convert job files to a printable format and send that data to the printer itself.
- Communicate with printers using LAN, USB, LPT or RS232
- The complexities of configuration and Printer language commands are hidden from users
- User will see the printer configuration for various models of SATO printers.

**Figure 1 Overview**

# Setup 3

## 3.1 Installing the Driver

After obtaining the packages perform the following actions below.

***Note:*** The screenshots may look different depending on the Linux Distribution you are using.

1) Login as root user. Otherwise, add the “sudo” or “su” command to obtain root permissions in front of each command you type in.

2) Launch the Terminal.

**Figure 2 Terminal screen**

3) Locate the package file. For example, if you saved the packages in the “Documents/SATO” folder you can type in:
cd ~/Documents/SATO [ENTER]

4) To install the package, use the corresponding commands below:

   **For .deb files you can type in:**
   dpkg -i [insert package name].deb [ENTER]

   **For .rpm files you can type in:**
   rpm -i [insert package name].rpm [ENTER]

   **For .gz files perform the following actions below**:
   1) Extract the package [insert package name].tar.gz into your local folder
   2) Run the satodriver.install

   In the occasion that the driver is already installed, an error will occur. To overwrite it, specify the “--force" option
   dpkg –I --force [insert package name].deb [ENTER]

5) After a short delay the driver will be installed automatically into your system.

## 3.2 Uninstalling the Driver

1) Login as root user. Otherwise, add the “sudo” or “su” command to obtain root permissions in front of each command you type in.

2) Launch the Terminal.

3) To delete the package you can type in:

   x86: dpkg -r satodriver
   x64: dpkg -r satodriver:amd64

# Managing the SATO Printer 4

## 4.1 Overview

Printers can be managed using the CUPS web interface, Printer Administration and by the use the command-line program. The easiest way to manage the printer is through the OS Printer Settings because it provides a step by step wizard screen for you to follow.

The CUPS supports devices such as Serial, USB, LAN and LPT.

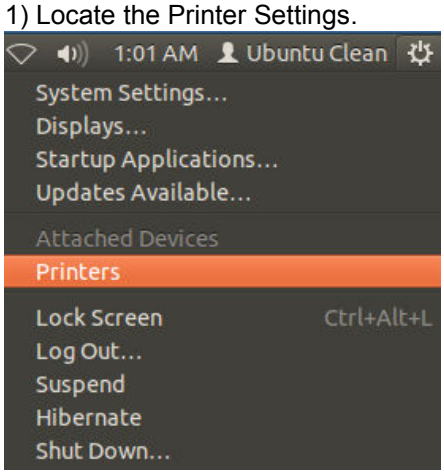
***Note:*** The screenshots may look different depending on the Linux Distribution you are using.

## 4.2 Managing Printers from the Printer Administration

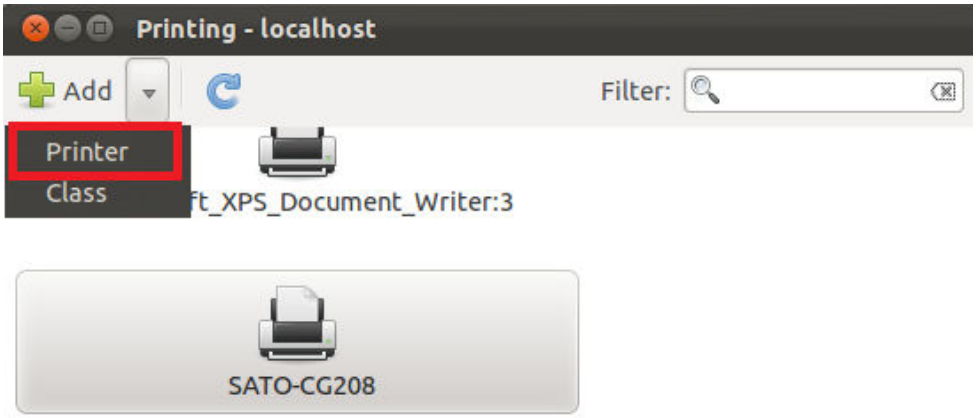
### 4.2.1 Adding a New Printer

To add a new printer from the Printer Administration, perform the following actions below:

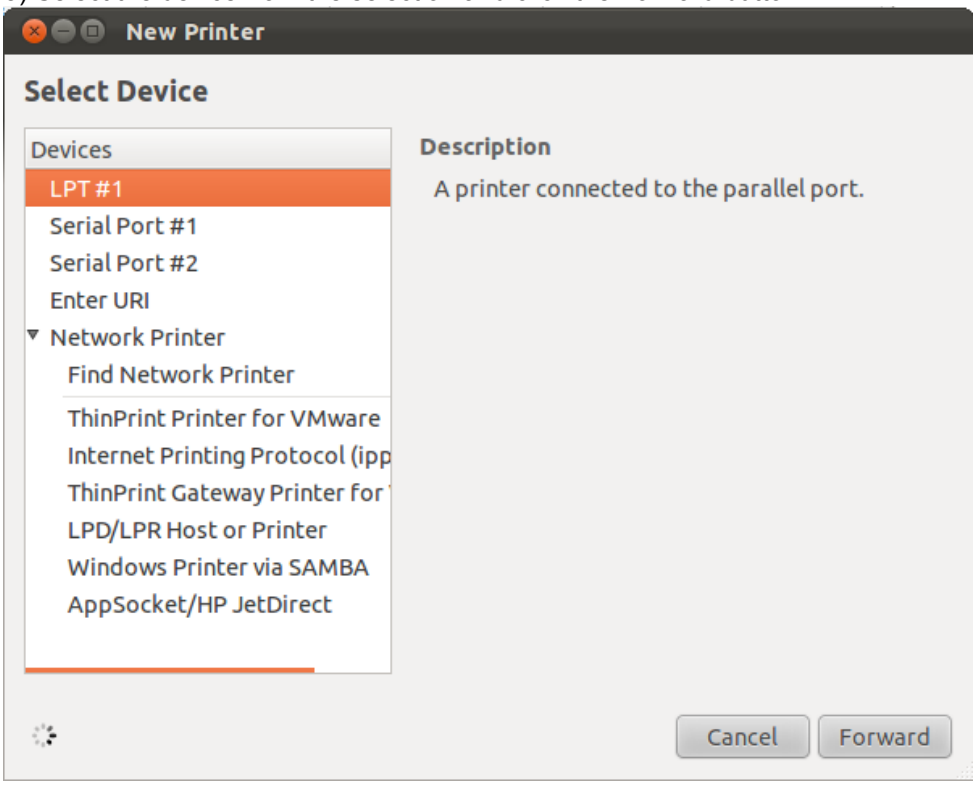
1) Locate the Printer Settings.



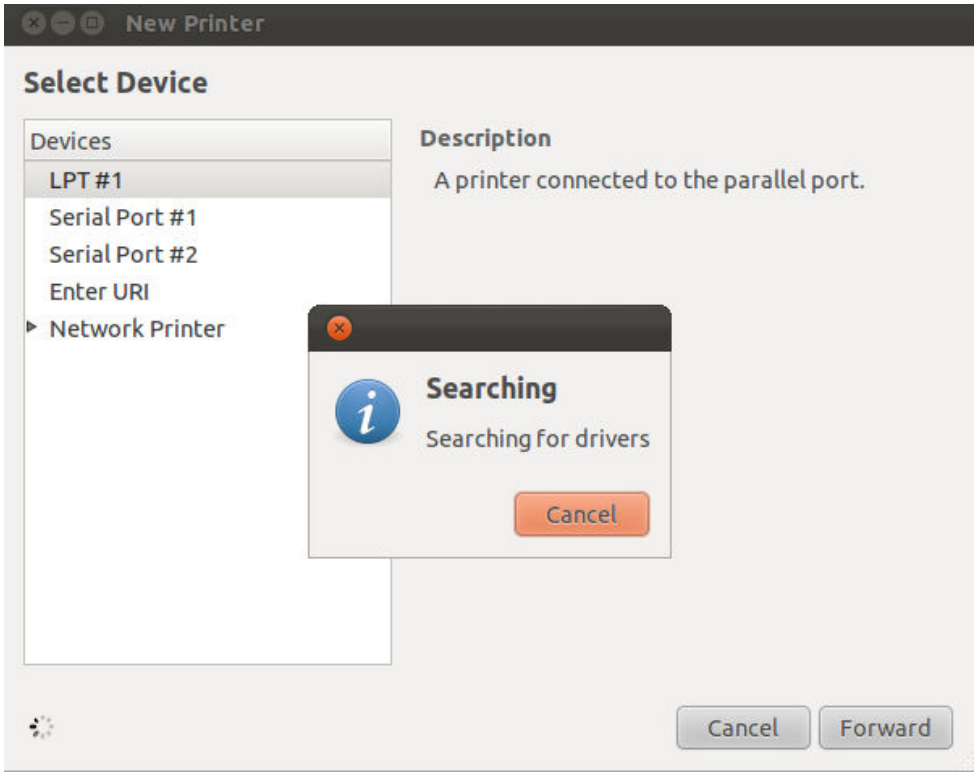

2) Click the Add > Printer option in the menu.




3) Select the device from the selection and click the Forward button.

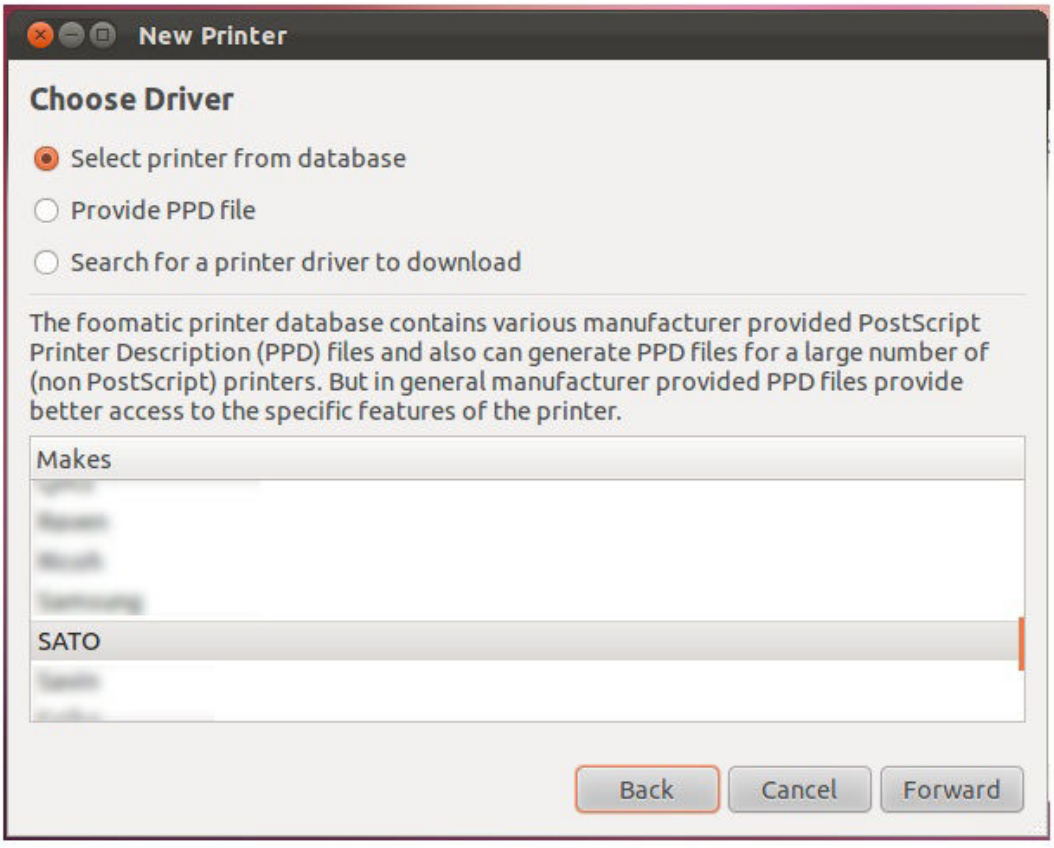



4) The system will start searching for existing drivers. If the printer information is found, it will automatically add the printer into the system.



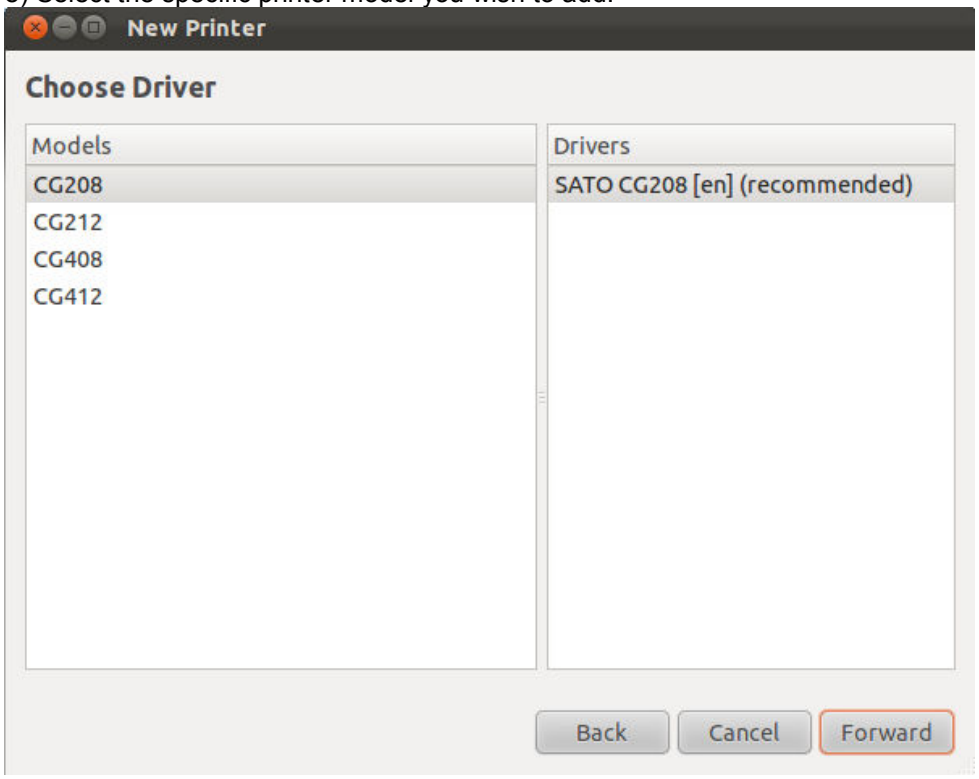

5) In case system couldn't find the printer information, you will be asked to manual select the printer you wish to add.

6) Select the "Select printer from the database" option from Choose Driver selection screen.

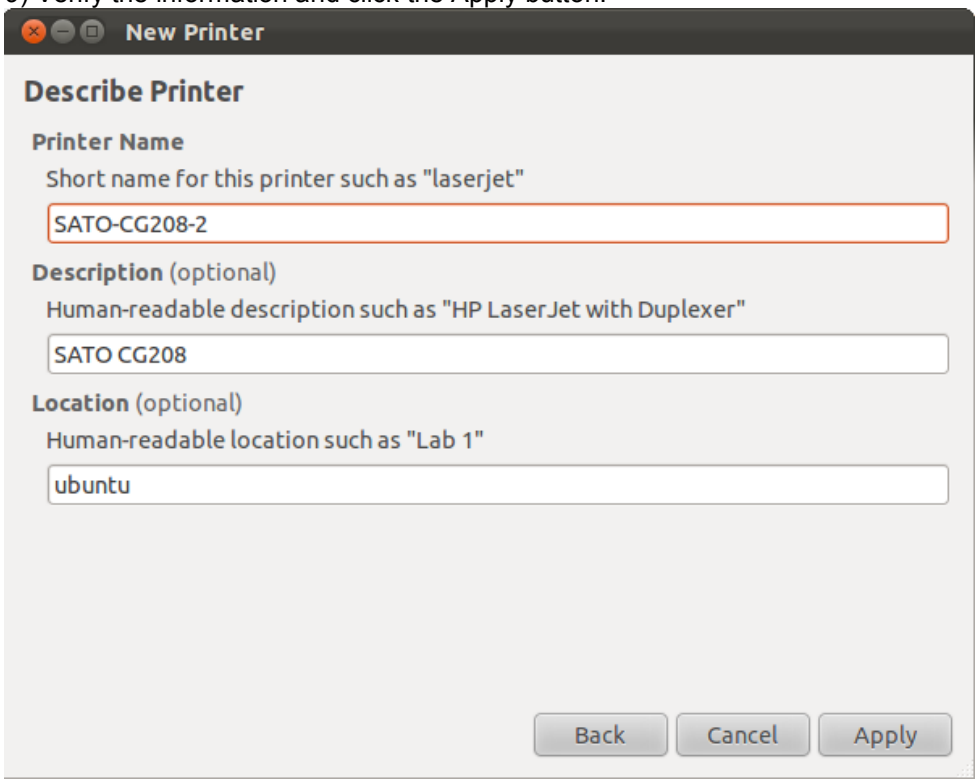

New Printer
Choose Driver
Select printer from database
Provide PPD file
Search for a printer driver to download
The foomatic printer database contains various manufacturer provided PostScript Printer Description (PPD) files and also can generate PPD files for a large number of (non PostScript) printers. But in general manufacturer provided PPD files provide better access to the specific features of the printer.
Makes
SATO
Back
Cancel
Forward

7) Select “SATO” in the Makes/Manufacturer selection and click the Forward button.

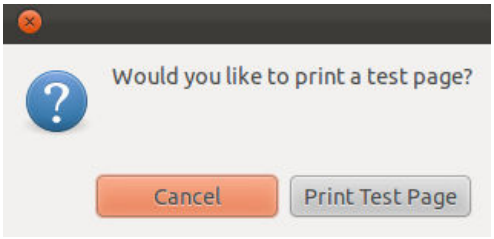
8) Select the specific printer model you wish to add.




9) Verify the information and click the Apply button.




10) Click the Print Test Page button to test the printer. Make sure your printer is online.

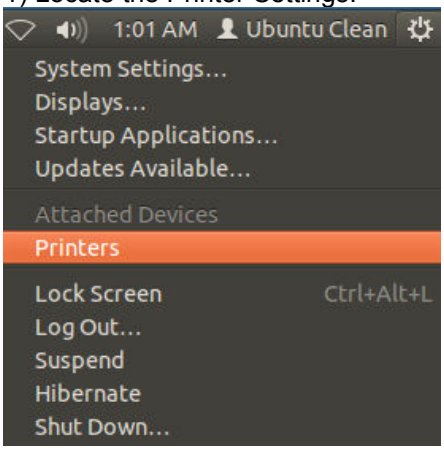



11) Check your test print.

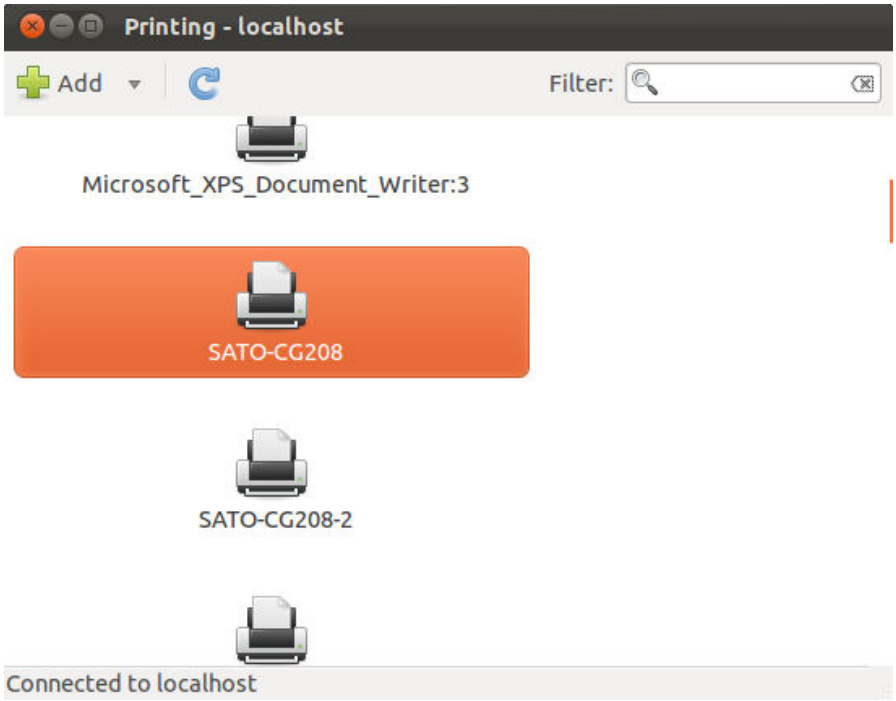
### *4.2.2 Modifying the Printer Properties*

To modify the printer properties perform the following actions below:

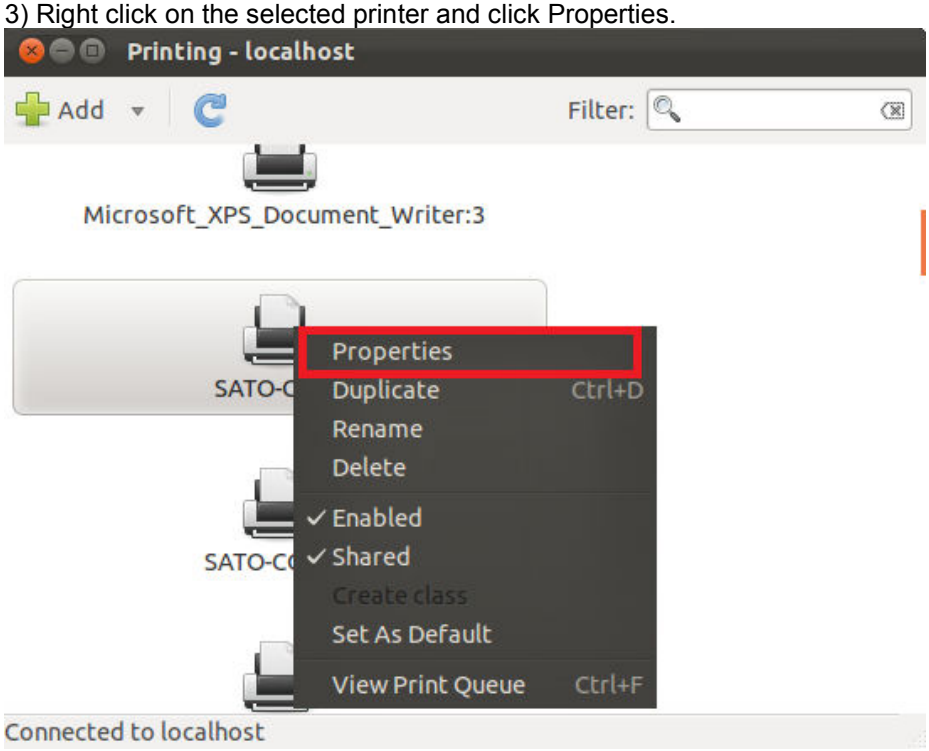
1) Locate the Printer Settings.



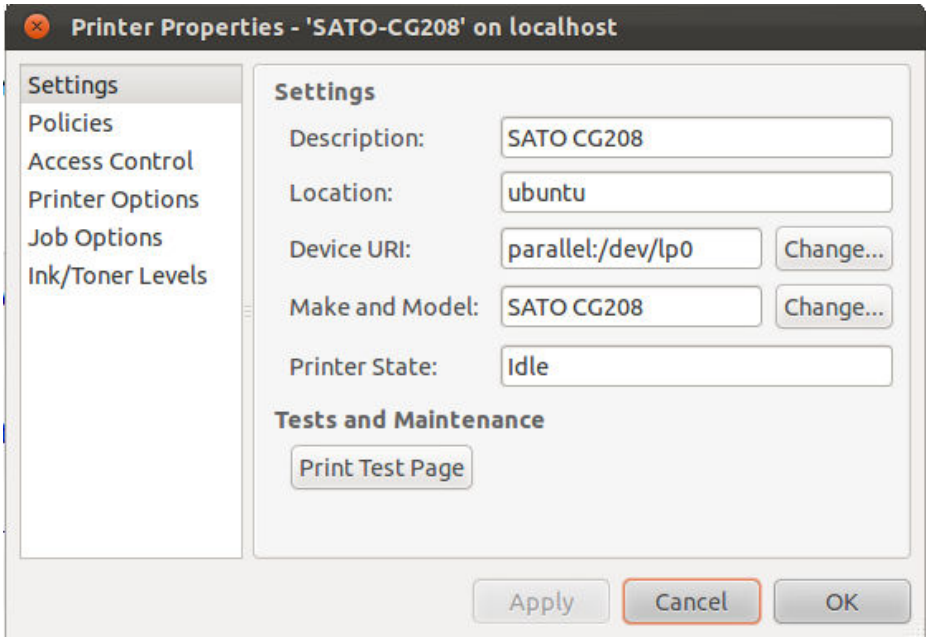

2) Select the printer you wish to modify in the screen.




3) Right click on the selected printer and click Properties.



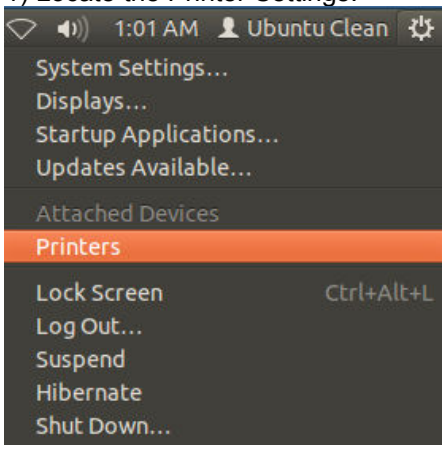

4) Modify the printer properties and click the Apply button.




### *4.2.3 Removing the Printer*

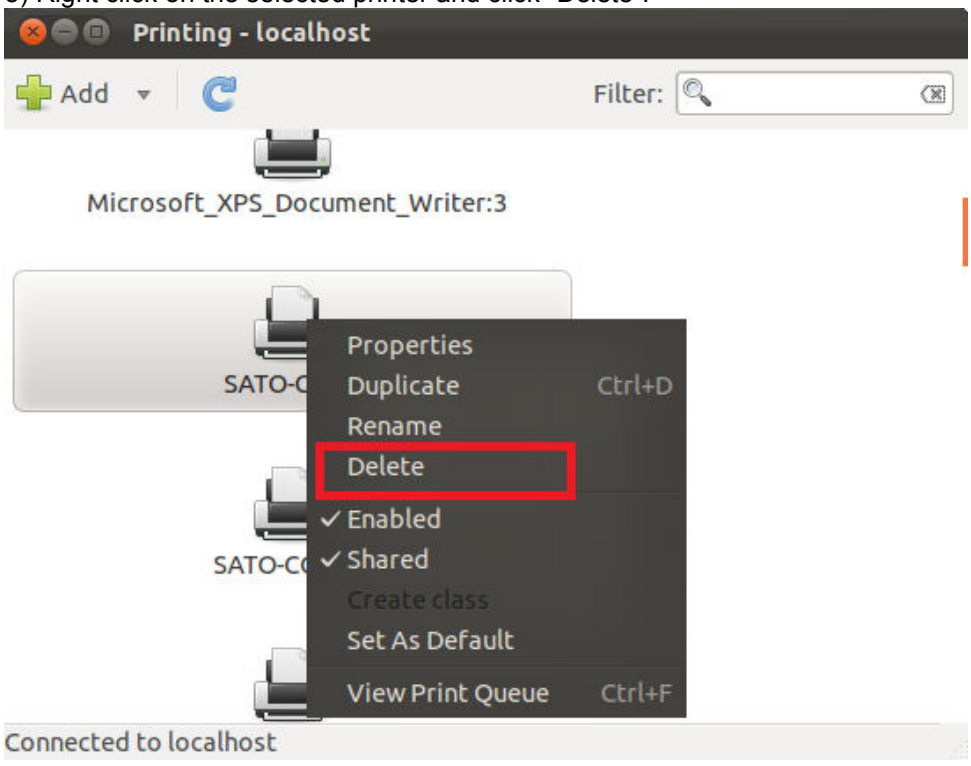
To remove an existing printer properties perform the following actions below:

1) Locate the Printer Settings.

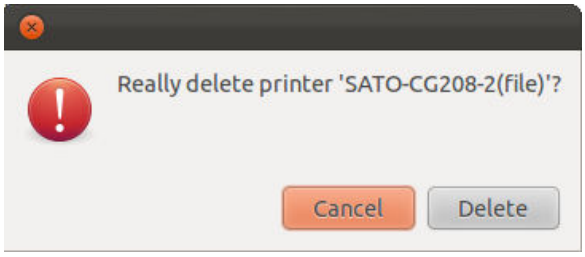



2) Select the printer you wish to modify in the screen.

3) Right click on the selected printer and click “Delete”.




4) Click the “Delete” button to confirm.




## 4.3 Managing Printers from the CUPS Web Interface

To find out more information on how to manage printers from the CUPS Web interface please refer to the CUPS documentation in the address below:
http://www.cups.org/articles.php?L274

## 4.4 Managing Printers from the Command Line

To find out more information on how to manage printers from the command-line please refer to the CUPS documentation in the address below:
http://www.cups.org/documentation.php/doc-1.6/options.html

## 4.5 Troubleshooting

The best way to troubleshoot the problem is to check the log file. The procedures are as follows:

1) Switch on the "debug" mode in the LogLevel directive for your CUPS daemon.

2) Edit */etc/cups/cupsd.conf* to have the line "LogLevel debug".

3) After changing the setting, restart CUPS daemon by typing *" /etc/software/init.d/cups start"* on the command-line.

4) Once the "LogLevel" has been modified, print a document and locate the log file generated. It can be found on */var/log/cups/error_log* directory of your machine.

5) Open the logs generated. This will give you the idea what caused the problem.

**Note:** Alternatively, you can also do it using the CUPS web interface.

To find out more on how to troubleshoot the driver, please refer to the CUPS documentation URL address below:
http://www.cups.org/documentation.php/doc-other/cups-help.html

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